9/707273

Refine Search

Search Results -

Terms	Documents
"peer-to-peer" and ((transmit$ or communicat$)) and (KU adj band) and @ad<=19991108	2

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L7

Refine Search

Recall Text | Clear | Interrupt

Search History

DATE: Monday, January 10, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR			
L7	"peer-to-peer" and ((transmit$ or communicat$)) and (KU adj band) and @ad<=19991108	2	L7
L6	L3 and KU	2	L6
L5	L4 and KU	0	L5
L4	("peer-to-peer" same (transmit$ or communicat$) same music) and @ad<=19991108	2	L4
L3	("peer-to-peer" same (transmit$ or communicat$)) and @ad<=19991108	1018	L3
L2	("peer-to-peer" same (transmit$ or communicat$)) and (KU adj band) and @ad<=19991108	0	L2
L1	("peer-to-peer" same (transmit$ or communicat$) same music) and (KU adj band) and @ad<=19991108	0	L1

END OF SEARCH HISTORY

L4: Entry 2 of 2 File: USPT Jan 9, 1996

US-PAT-NO: 5483535
DOCUMENT-IDENTIFIER: US 5483535 A

TITLE: Communications network interface, and adapter and method therefor

DATE-ISSUED: January 9, 1996

INVENTOR-INFORMATION:

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NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Zeta Music Partners	Oakland	CA			02

APPL-NO: 08/ 374148 [PALM]
DATE FILED: January 17, 1995

INT-CL: [06] H04 L 5/22

US-CL-ISSUED: 370/85.1; 370/85.5, 340/825.05
US-CL-CURRENT: 370/452; 370/463, 370/465

FIELD-OF-SEARCH: 370/85.1, 370/85.4, 370/85.5, 370/85.9, 370/85.11, 370/85.12, 370/85.15, 340/825.05, 340/825.5

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4566097	January 1986	Bederman	370/85.5
☐	4736368	April 1988	Szczepanek	370/85.5
☐	4819229	April 1989	Pritty et al.	370/85.5
☐	5274637	December 1993	Sakamura et al.	370/85.5

End of Result Set

L4: Entry 2 of 2 File: USPT Jan 9, 1996

DOCUMENT-IDENTIFIER: US 5483535 A
TITLE: Communications network interface, and adapter and method therefor

Application Filing Date (1):
19950117

Brief Summary Text (7):
This master-slave arrangement, however, is not desirable for some applications. With regard to the music synthesis network mentioned above, peer-to-peer communications, wherein any station on the network can communicate directly with any other station without going through a master station, is preferred because of, for example, the greater flexibility of communication due to the direct station-to-station communication. In peer-to-peer communications, while one device is sending data, there is not another device on the ring sending it all ones. Instead, the data sent by that device goes all the way around the ring and back to the sender. Thus, the 8530 chip operating in SDLC loop mode has not been useful in peer-to-peer communications because it would not receive the expected stream of ones during transmission. Instead it would receive its transmitted data back so that it would likely transmit an improper format at the conclusion of its transmission.

L7: Entry 1 of 2 File: USPT May 9, 2000

DOCUMENT-IDENTIFIER: US 6061440 A
TITLE: Intelligent switching system for voice and data

Abstract Text (1):
A teleconferencing system for voice and data provides interconnections among user sites via a central station. User stations at user sites each alternate operation between a data mode connecting a user computer and modem to a user telephone communication path and a voice mode connecting a telephony circuit to the communication path. The teleconferencing system is adapted for conducting a voice conference over standard telephone lines while allowing simultaneous viewing of data objects such as slides, graphs, or text. A host computer connected to the central station serves as a central repository for storage and retrieval of data objects for use in teleconferences.

Application Filing Date (1):
19981130

Brief Summary Text (2):
During a voice teleconference, it is often desirable for two or more conference participants to be able to both view and discuss common data objects such as a set of images. For example, one participant may desire to conduct a slide presentation concurrent with a voice conversation among the participants. Systems which enable a person to receive and view image data over a telephone line concurrent with voice conversation are known. One such system interrupts the telephone conversation momentarily to allow visual data to be transmitted over the telephone line. Following the transmission of visual data, the voice communication can be automatically resumed. Other known systems for sharing voice and image data generally require relatively complex equipment, specially enhanced modems, or dedicated high speed digital lines such as Integrated Services Digital Network (ISDN). Still other systems require multiple telephone lines to handle both data object manipulation and voice. Generally, the known desktop teleconferencing systems are for point-to-point communications rather than multipoint, multiparty communications.

Brief Summary Text (4):
It would be advantageous to provide a teleconferencing system which avoids having to interrupt voice communication in order to transmit data objects such as images meant to be viewed and discussed concurrently. It would also be advantageous to be able to provide such a teleconferencing capability without requiring complex devices or dedicated lines. The above and other advantages are achieved by the present invention. In general, the teleconferencing provided by the present invention allows multiple users to conduct a voice conference over standard telephone lines while simultaneously viewing shared slides, graphs, text, or other data objects.

Brief Summary Text (5):
The improved teleconferencing system stores a common set of data objects, such as slides, in a digital computer associated with each participant prior to the start of a voice conference. Once a voice conference is underway, a lead speaker can generate audible signals (e.g., Dual Tone Multi-Frequency (DTMF) tones) to which

the computers respond to coordinate simultaneous display of the data objects on each participant's computer screen. Since the data objects are stored prior to the conference and the audible signals are sent with voice communications signals, the voice conversation can flow naturally and uninterrupted by data transmissions.

Brief Summary Text (6):
To facilitate storage and dissemination of the common data objects, a novel arrangement is employed whereby a host computer, preferably configured as a bulletin board system (BBS), serves as a central repository for collecting subsets of data objects from conference participants and combining the subsets into a common set prior to a conference. Participating speakers each initially connect to the host computer and transmit a subset of data objects to the host computer. Participants (speakers and conference attendees) in turn are able to retrieve the common set of data objects from the BBS host computer before entering into a voice conference.

Brief Summary Text (8):
Accordingly, a voice/data teleconferencing system interconnects a plurality of user sites and a central site over a plurality of communication paths, such as telephone lines. Each user site may include a user digital computer connectable to a user modem for transmitting and receiving data signals. A host digital computer at the central site is connectable to a plurality of host modems for transmitting and receiving data signals to and from the user sites.

Brief Summary Text (9):
A user station located at each user site includes a data port connectable to a user modem, a telephony circuit capable of transmitting and receiving voice communications signals, and a mode selector for alternately connecting the data port and the telephony circuit to a communication path. The mode selector has a data mode position in which the data port is connected to the communication path and a voice mode position in which the telephony circuit is connected to the communication path and the data port is connected to a user modem loopback impedance. The mode selector is responsive to a selector control signal to switch from data mode to voice mode, and the selector defaults to the data mode in the absence of the selector control signal. Thus, in the data mode, data signals can pass between the data port and the communication path, and in the voice mode, voice communications signals can pass between the telephony circuit and the communication path while the user modem is held "off-hook" by the loopback impedance. The user digital computer is programmed to control the user station.

Brief Summary Text (10):
The user station further includes a tone generator and tone detector for respectively transmitting and receiving audible conferencing signals with the voice communications signals over the communication path.

Brief Summary Text (11):
A central station at the central site includes a plurality of line ports and a switching matrix for interconnecting the user stations. The switching matrix comprises a plurality of crosspoint switching elements, each switching element actuable to connect one line port to another line port in response to matrix control signals. The central station further includes a plurality of tone generators and tone detectors coupled to respective line ports for transmitting and receiving audible conferencing signals to and from user stations.

Brief Summary Text (14):
According to another aspect of the invention, each user site can record audible conferencing signals and voice communications signals in a voice conference for playing back at a subsequent time in conjunction with simultaneous display of the data objects on the user computer screen.

Detailed Description Text (5):
There are two general conferencing modes: voice mode and data mode. In voice mode conferencing, two or more users are interconnected via the central station SW. Users in a voice conference transmit and receive voice communications signals and audible conference control signals. The audible conference control signals, which can be DTMF tones, for example, are described in detail herein. A user interface and conference control functions are also described further below.

Detailed Description Text (9):
Once the multiple users enter the voice mode, a virtual visual conference is established simultaneously with the voice conference whereby display of the data objects on each user computer can be coordinated. The data objects display coordination is accomplished by having a designated speaker select a current data object to be displayed, the selection of which causes the speaker's associated user station to generate an audible conference control signal. The conference control signal is transmitted in-band with voice communications signals to the other users in the conference. The user station of each of the other users in the conference detects the conference control signal which then causes the locally stored copy of the data object selected by the speaker to be displayed.

Detailed Description Text (11):
There are three forms of data mode conferencing in which users may transmit and receive data signals. In a data collaboration mode, two or more users are able to collaborate to perform a whiteboard function. The users in the data collaboration mode are connected through the central station SW to the host computer HC, each user having an individual data session. In a private data file transfer mode, two users are interconnected through the central station SW to provide for private file transfers between the two users without involving the host computer HC. There is also a private data broadcast mode in which two or more users are interconnected via the central station SW to allow a user to broadcast a file to the other users. In the private data broadcast mode, there is no handshaking between user modems.

Detailed Description Text (14):
In the preferred embodiment, a protocol known as Remote Image Protocol (RIP) is used to control manipulation of the data objects which are stored at each of the user computers (SC1-SCN) in a conference. A family of RIP commands coded as DTMF conference control signals may be transmitted, for example, by the lead speaker to other conference attendees during a voice mode conference to coordinate display of selected data objects at each of the attendees respective user computer (SC1-SCN). In a data mode scenario, such as in a whiteboard session, the annotation commands may be RIP commands coded as a series of escape (ESC) sequences. A description of the RIP protocol can be found in "RIP Aint User's Guide," Telegrafix Communications Inc. (September, 1993, Version 1.54), the contents of which are incorporated herein by reference.

Detailed Description Text (15):
Referring again to FIG. 1 to provide more details, the user lines (SL1-SLN) connect to the central station SW via a telephone network NW and terminate on a plurality of line ports (LP1-LPN). The central station SW includes a plurality of computer ports (CP1-CPN) which are coupled to host computer HC via a plurality of host modems (HM1-HMN). A plurality of through ports (TP1-TPN) on the central station SW are available for accessing other services and external networks described further herein. The central station SW provides connections between line ports (LP1-LPN) and computer ports (CP1-CPN) and between line ports (LP1-LPN) and through ports (TP1-TPN). A switch matrix SMX in the central station SW provides interconnections among multiple line ports (LP1-LPN) to form conferences. Operation of the switch matrix SMX will be described further below. The central station SW includes a controller CL for controlling conference and switching actions in the central station SW. The controller CL communicates with the host computer HC through control/data lines HCL. The central station SW also includes a revenue generation

module RG which records billing information for all conference and switching actions provided through the central station SW.

Detailed Description Text (17):
The auxiliary device AD1 connected to the auxiliary port AUX1 can be, for example, a typical audio recording machine. Such an audio recording machine can be used to record the voice communications signals and DTMF conference control signals received over user line SL1 during the voice mode of a conference. This recording arrangement would allow a user to replay and review a complete conference presentation in conjunction with the locally stored data objects from the recorded conference.

Detailed Description Text (21):
A DTMF encoder 42 and a DTMF decoder 46 respectively transmit and receive the audible conference control signals. The DTMF encoder 42 receives tone control information on control line 38 and passes tone outputs on line 44 to voice interface 40. The DTMF decoder 46 is inductively coupled across telephony paths 72a, 72b via transformer T1. The DTMF decoder 46 signals tone detection on line 58 and passes decoded tones on line 60.

Detailed Description Text (32):
A plurality of DTMF encoder/decoder circuits (TG1-TGN) are coupled to respective rails (L1-LN) for transmitting and receiving audible conference control signals to and from respective user stations (SU1-SUN) (FIG. 1). The through ports (TP1-TPN) are connected to respective line ports (LP1-LPN) through switches (106-1-106-N). All of the switches and DTMF encoder/decoder circuits in the central station SW operate in response to control signals from the controller CL. The switches preferably are solid state switching devices, such as the OptoMOS.RTM. Solid State Switch LCA110 manufactured by CP Clare Corporation.

Detailed Description Text (49):
A description of several of the conference control procedures possible within a conference will now be provided. The procedure for placing all the conference attendees into voice mode is illustrated by FIG. 10. Starting at step 320, the users are connected in a conference and are in data mode. The lead speaker may select a go.sub.-- voice icon at step 322 to initiate the procedure. At step 324, the host computer broadcasts the digital go.sub.-- voice command to all the conference attendees. The TSR at each attendee user computer filters the command at 326 and instructs the user station to switch to voice mode at step 328. At the same step, the host computer communicates with the controller CL of the central station SW (FIG. 1) to interconnect the conference attendees in voice mode.

Detailed Description Text (50):
The procedure for coordinating the simultaneous viewing of data objects, or slides, is illustrated in FIG. 11. The procedure begins at step 340 with the users connected in a conference. The lead speaker selects the slide icon at step 342. The TSR determines whether the conference is in data or voice mode at step 344. If the conference is in data mode, the slide command from the lead speaker is broadcast to all conference attendees by the host computer at step 346. If the conference is in voice mode, the speaker's TSR filters the slide command at step 348 and converts the command to a show.sub.-- slide.sub.-- n opcode at step 350. The TSR instructs the user station to send the opcode via the DTMF encoder 42 (FIG. 2) at step 352. The opcode tone sequence is broadcast to attendees through the central station SW (FIGS. 1,3) at step 354. At each attendee user station, the DTMF decoder 46 (FIG. 2) detects the opcode tone sequence at step 356. At step 358, the TSR of each attendee instructs the user computer to display slide n. Thus, although data mode actions between users and the host computer follow a client/server model, in voice mode, many peer-to-peer events take place between users for efficiency and simplicity.

Detailed Description Text (53):
The teleconferencing system of the present invention can also be configured in a network arrangement as shown in FIG. 14. Two central stations SWa, SWb are shown connected through a frame relay network FR. Two central stations are shown for purposes of example and not as a limitation, i.e., any number of central stations may be interconnected through network FR. The frame relay network FR includes connections to Internet network IN and a Ku-band uplink server UL. The uplink server UL in turn connects via a satellite network KN to a Ku-band receiver KR located at user site SSN and connected to user station SUN.

Detailed Description Text (54):
The network arrangement provides for sharing of communications resources among cooperating BBS systems. Thus, for example, a conference can be conducted among user sites connected across such a network arrangement. A second example is where a first BBS system, such as host computer HCa, has several voice recognition servers. Users associated with a second BBS system, host computer HCb, can then be routed via the frame relay network FR to central station SWa and host computer HCa in order to access a voice recognition application.

Detailed Description Text (55):
A third example is where the uplink server UL connected to the frame relay network FR performs high-speed information downloading to receiver KR. Many telecommunications service providers want to be able to deliver bi-directional data at high bandwidths for multimedia applications. However, in most applications it is more important to deliver large amounts of data to the end user (downloaded), while very little data needs to be sent back to central file servers from end users (uploaded). With the satellite networking arrangement of the present invention shown in FIG. 14, users may receive high-speed file downloads or real-motion video via satellite rather than over narrow bandwidth telephone lines. In operation, the user at user site SSN may request a large file download from the local BBS, host computer HCa. Host computer HCa queues up the file from its internal file storage, or from the Internet IN. The requested file is then routed over the frame relay network FR to the uplink server UL with the user address information. The file is transmitted over the Ku band satellite network KN with user addressing and encryption and received by receiver KR. The received file is then routed through user station SUN to the local digital computer at user site SSN. Billing information for the file transfer is forwarded along with file transfer confirmation to the host computer HCa after a checksum verification indicates that the file was received error-free.

Detailed Description Text (56):
A fourth example combines satellite technology for real-time multimedia information delivery with user/host computer communications to form a complete multimedia system. Referring again to FIG. 14, a user at user site SSN may request to see, for example, a one minute product presentation. One minute of compressed video occupies approximately 12 Mb. The host computer HCa transmits 2 Mb frames every ten seconds through the frame relay network FR and the satellite network KN to the user receiver KR. Each new frame can be loaded directly to the on-board memory of the user digital computer at user site SSN for audio/video playback. Real-time user feedback is communicated between the user and the host computer HCa via the modem connection.

Other Reference Publication (2):
"VoiceView.RTM. : A New Protocol for Integrated Voice & Data Applications," brochure from Radish Communications System, Inc., pp. 1-11, 1994.

Other Reference Publication (3):
"Intel Technology Briefing--The Communicating PC Another Communications Breakthrough," sales brochure from Intel Corp. pp. 1-4, 1994.

Other Reference Publication (6):
Tanigawa, H. et al., "Multipoint Communication Control for Document-Oriented Teleconferencing,"1988, Int'l. Zurich Seminar on Digital Communications--Session A3, pp. 29-35, Mar. 1988.

Other Reference Publication (10):
Nakamura, K., et al., "Personal Multimedia Teleconferencing Terminal," IEEE International Conference on Communications--Session 211.2.1, vol. 1, pp. 123-127, Apr. 1990.

CLAIMS:

1. A method of teleconferencing among a plurality of user sites, comprising the steps of:

storing a common set of data objects in a plurality of digital computers, each of the digital computers located at a respective user site and having a memory for data object storage and a monitor for data object display, wherein the storing step occurs prior to a teleconference among the user sites;

interconnecting the plurality of user sites into the teleconference via a network;

at an individual user site, selecting a data object from the common set of data objects and transmitting an audible signal to the other user sites via the network to indicate the selected data object; and

at each of the other user sites, receiving and decoding the audible signal and displaying the selected data object on the respective digital computer monitor in response to the decoded audible signal.

3. The method of claim 1 further comprising the step of at each user site, transmitting and receiving voice communications signals to and from other user sites via the network.

4. The method of claim 3 further comprising the steps of at a user site, recording audible signals and voice communications signals; playing the recording at a subsequent time; and displaying selected data objects on the respective digital computer monitor in response to the recorded

audible signals.

5. A method of teleconferencing among a plurality of user sites, comprising the steps of:

storing a common set of data objects in a host digital computer having a memory for data object storage;

connecting the plurality of user sites to the host digital computers via a central station;

transmitting the common set of data objects from the host digital computer to a plurality of user digital computers, each of the user digital computers located at a respective user site and having a memory for data object storage and a monitor for data object display, wherein the storing, connecting, and transmitting steps occur prior to a teleconference among the user sites;

interconnecting the plurality of user sites into the teleconference via the central station;

at an individual user site, selecting a data object from the common set of data

objects and transmitting an audible signal to the other user sites via the central station to indicate the selected data object; and

at each of the other user sites, receiving and decoding the audible signal and displaying the selected data object on the respective digital computer monitor in response to the decoded audible signal.

7. The method of claim 5 further comprising the step of at each user site, transmitting and receiving voice communications signals to and from other user sites via the central station.

8. The method of claim 7 further comprising the steps of at a user site, recording audible signals and voice communications signals; playing the recording at a subsequent time; and displaying selected data objects on the respective digital computer monitor in response to the recorded audible signals.

9. Apparatus for teleconferencing among a plurality of user sites, comprising:

a plurality of digital computers, each digital computer storing a common set of data objects prior to a teleconference and located at a respective user site and having a memory for data object storage and a monitor for data object display;

a network for interconnecting the plurality of user sites into the teleconference; and

at each user site,

(i) means for selecting a data object from the common set of data objects;

(ii) a tone generator for transmitting an audible signal indicating the selected data object to the other user sites via the network;

(iii) a tone receiver for receiving and decoding the audible signal, the selected data object being displayed on the respective digital computer monitor in response to the decoded audible signal.

10. The apparatus of claim 9 wherein each user site further comprises a telephony circuit for transmitting and receiving voice communications signals to and from other user sites via the network.

12. Apparatus for teleconferencing among a plurality of user sites, comprising:

a host digital computer for storing a common set of data objects and having a memory for data object storage;

a central station for interconnecting the plurality of user sites and the host digital computer into a teleconference;

a plurality of digital computers, each digital computer located at a respective user site and having a memory for data object storage and a monitor for data object display, the common set of data objects being transmitted from the host digital computer to each user digital computer prior to the teleconference; and

at each user site,

(i) means for selecting a data object from the common set of data objects;

(ii) a tone generator for transmitting an audible signal indicating the selected data object to the other user sites via the central station;

(iii) a tone receiver for receiving and decoding the audible signal, the selected data object being displayed on the respective digital computer monitor in response to the decoded audible signal.

13. The apparatus of claim 12 wherein each user site further comprises a telephony circuit for transmitting and receiving voice communications signals to and from other user sites via the central station.

14. The apparatus of claim 13 wherein a user site further comprises a recorder for recording audible signals and voice communications signals and playback means for playing the recording at a subsequent time; and wherein selected data objects are displayed on the respective digital computer monitor in response to the recorded audible signals.

15. A method of teleconferencing among a plurality of user sites, comprising the steps of:

interconnecting a first set of user sites via a central station;

selecting a subset of the first set of user sites to form a second set of user sites;

interconnecting the second set of user sites via the central station;

attenuating communications signals from the first set of user sites a predetermined amount to provide attenuated communication signals; and

connecting the attenuated communications signals to the second set of user sites.

16. The method of claim 15 wherein the communications signals include voice communications signals and audible conferencing signals.

17. The method of claim 15, wherein the communication signals are attenuated at least 20 percent.

18. A method of teleconferencing among a plurality of user sites, comprising the steps of:

storing a common set of data objects in a plurality of digital computers, each of the digital computers located at a respective user site and having a memory for data object storage and a monitor for data object display, wherein the storing step occurs prior to a teleconference among user sites;

interconnecting the plurality of user sites into the teleconference via a network;

at an individual user site, selecting a data object from the common set of data objects and transmitting an audible conference control signal to the other user sites via the network to indicate the selected data object; and

at each of the other user sites, receiving and decoding the audible conference control signal and displaying the selected data object on the respective digital computer monitor in response to the decoded audible conference control signal.

20. The method of claim 18 further comprising the step of at each user site, transmitting and receiving voice communications signals to and from other user sites via the network.

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ART-UNIT: 263

PRIMARY-EXAMINER: Marcelo; Melvin

ATTY-AGENT-FIRM: Dougherty, Hessin, Beavers & Gilbert

ABSTRACT:

An interface for a peer-to-peer communications network, such as a token ring network, uses a master-slave serial communications controller and an adapter to enable the interface to operate in a peer-to-peer mode on the network.

8 Claims, 6 Drawing figures

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L8: Entry 6 of 8 File: USPT May 8, 2001

US-PAT-NO: 6229453
DOCUMENT-IDENTIFIER: US 6229453 B1

TITLE: Method to transmit downhole video up standard wireline cable using digital data compression techniques

DATE-ISSUED: May 8, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gardner; Wallace R.	Houston	TX		
Maddox; Steven D.	Houston	TX		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Halliburton Energy Services, Inc.	Houston	TX			02

APPL-NO: 09/ 013373 [PALM]
DATE FILED: January 26, 1998

INT-CL: [07] G01 V 3/00

US-CL-ISSUED: 340/853.8; 340/854.7, 340/854.9, 367/68, 348/85
US-CL-CURRENT: 340/853.8; 340/854.7, 340/854.9, 348/85, 367/68

FIELD-OF-SEARCH: 340/854.9, 340/856.3, 340/854.7, 340/855.6, 340/856.4, 348/85, 367/81, 367/68

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3865201	February 1975	Haden	166/250
☐	3974330	August 1976	Askowith et al.	348/85
☐	5134471	July 1992	Gerdron et al.	367/69
☐	5485745	January 1996	Rademaker et al.	340/854.9
☐	5493626	February 1996	Schultz et al.	385/101
☐	5663559	September 1997	Auzerais et al.	250/269.1

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The Wavelet tutorial, Part I, by Robi Polikar; Fundamental Concepts and an Overview of the Wavelet Theory, Second Edition, Jun. 5, 1996 no Page #'s.
The Wavelet Tutorial Part 2, by Robi Polikar; Fundamentals: The Fourier Transform and The Short Term Fourier Transform, May 30, 1996 no Page #'s.
The Wavelet Tutorial Part III, by Robi Polikar, Multiresolution Analysis and The continuous Wavelet Transform, Jun. 5, 1996 no Page #'s.
Wavelet Based Bideo Codecs no Page Nos.
An Introduction to Wavelets, Amara Graps, 1995, Institute of Electrical and Electronics Engineers, Inc. pp. 1-18.

ART-UNIT: 265

PRIMARY-EXAMINER: Horabik; Michael

ASSISTANT-EXAMINER: Edwards, Jr.; Timothy

ATTY-AGENT-FIRM: Conley, Rose & Tayon, P.C.

ABSTRACT:

Disclosed is a downhole video system that is suitable for use with a standard wireline transmission line, without the need for coaxial or fiber optic cable. A downhole video camera transmits a digitized video signal that may be multiplexed with orientation, sound, and other telemetry data. At the surface, an enhanced video is displayed simultaneously with processed sound to give an operator a better understanding of the conditions downhole. In addition, multiple modes are provided, including a "burst" mode to provide high resolution, full motion video, thereby circumventing the severe bandwidth limitations of standard electrical transmission lines.

21 Claims, 9 Drawing figures

Previous Doc Next Doc Go to Doc#

L3: Entry 2 of 2 File: USPT Nov 5, 1996

DOCUMENT-IDENTIFIER: US 5572442 A
TITLE: System for distributing subscription and on-demand audio programming

Brief Summary Text (9):
There are other significant limitations inherent in an off-the-air recording system that include a lack of control of the choice of program material, and the time at which the subscriber can listen to this material. In current radio broadcast systems, the program material is broadcast when the station manager thinks it best. Such real time distribution requires that interested listeners tune in at the designated time, assuming that the station is willing or able to publicize its broadcast schedule in advance of the broadcast. Even so, a listener must typically endure several annoying interruptions for commercial messages, even if listening to the so-called public radio stations. Prerecorded materials are packaged by the manufacturer and must be used in the format provided, i.e. all of the materials must be listened to in the order they were recorded. Otherwise, the consumer must prerecord the prerecorded materials to edit the content and/or order of the materials, as well as adding other materials that were not included by the manufacturer of the prerecorded programming. As discussed above, the recording process is time consuming, requires a certain level of patience and skill, and is a significant barrier to use for the typical listener. Thus, those persons listening to a broadcast while in their automobiles have less control because they cannot time shift a program by recording the program, although they may nevertheless want to listen to certain programs while traveling. Additionally, those persons listening in the automobiles may want to listen to program material that is not normally available on a public broadcast channel. While those persons listening in their automobiles may listen to recordings that they have purchased or recorded themselves when the program material was originally broadcast, the mobile listener cannot take control of the program selection process and the time at which the program is heard, nor can such materials be combined or edited without a significant commitment of the listener's time to assembling the desired materials, or portions of the desired materials, in the desired order.

Brief Summary Text (17):
D. Rhoades, Telephone Access Video Game Distribution Center, U.S. Pat. No. 5,051,822 (24 Sep. 1991), which discloses a digital, interactive communication system that is designed to provide a plurality of remote subscribers with any one of a plurality of stored video games or like software packages through the use of a home computing assembly maintained within the subscriber's home. The assembly is structured to display video as well as generating audio on a standard television receiver, and further incorporates the ability to use contemporary video gaming control devices for subscriber program interaction. A bi-directional communication link is established over the telephone lines between the home computing assembly and the central remote game storage center wherein the software programs are transmitted as a modulated carrier to the subscriber. Program selection is controlled by a remote game storage center executive software program. Automatic billing is performed by computing equipment maintained in the remote game storage center and transmitted to a headquarters which also receives diagnostic messages associated with the remote game center and/or the associated plurality of home

computing elements. And, also Pocock et al, U.S. Pat. Nos. 4,734,764 and 5,014,125 (a system for conveys still frame video with overlaid graphics and audio to a CATV channel during the vertical blanking interval of a television signal, including subscriber control and selection of display material via operation of a touch tone pad on a telephone); McCalley et al, U.S. Pat. No. 4,829,372 (packet transmission of digital information to a subscriber via a dedicated line/converter); Abraham, U.S. Pat. Nos. 4,567,512 and 4,590,516 (telephone subscriber request and scheduling system); Harrison, U.S. Pat. No. 4,584,603 (closed environment entertainment system including subscriber selection and control of program material); Bessler et al, U.S. Pat. No. 4,755,872 (pay for view system for use with cable system having one way addressable converters); Clark et al, U.S. Pat. No. 4,761,684 (telephone selection of video programming for cable television system); Gordon et al, U.S. Pat. No. 4,763,191 (telephone selection of video programming for cable television system); Monslow et al, U.S. Pat. No. 4,995,078 (telephone scheduling of real time video broadcast over a dedicated cable system); Lambert, U.S. Pat. No. 4,381,522 (telephone selection of video programming for viewing on a cable television system in which a directory channel displays program selections and schedules); Goodman et al, U.S. Pat. No. 5,010,399 (video transmission and control over residential phone lines); and Kleinermann, U.S. Pat. No. 4,849,811 (simultaneous transmission of audio and image frames over standard telephone lines).

Detailed Description Text (5):
It is anticipated that one important use of the invention is as a subscription service. For example, a daily newspaper, such as the Wall St. Journal or the New York Times, may be transcribed each morning into an audio version, that is then digitized and delivered to the library 18. In this way, the library may provide daily delivery of a morning newspaper in audio format that allows a subscriber to listen to the news in a way that the news is not interrupted by commercial breaks and is not truncated to fit into a tight broadcast schedule.

Detailed Description Text (6):
A program distribution system 10 is provided by the invention to enable a subscriber to select desired programs, and to be charged for the service. The program distribution system includes an information request manager 22 that selects a series of stored program materials from the library 18 via an access and distribution control circuit 20. The subscriber is billed for selected program materials by a billing and account manager 24. Program selection may be made over a telephone line, as in shown in the prior art, or it may be made from the subscriber's television 32 and/or a standard interactive cable television converter 30. Orders placed by the subscriber are routed via a cable television system 28, or from residential phone lines via a telephone order and validation module 34, to an input portion of the transmission system 26, from which they are routed internally for scheduling by the information request manager 24.

Detailed Description Text (13):
The subscriber may use a two-way feedback selection device, such as a television remote control device, to make the desired program material selection. Alternatively, the subscriber may use a touch-tone phone to dial a toll free number, such as an 800 number, and enter program material selections from the telephone keypad, for example when the cable system does not provide a two-way interactive capability. In such instance, the cable system updates the subscriber's display such that choices made by operating the telephone keypad are reflected immediately on the subscriber's display. Thus, the subscriber navigates the display using the telephone keypad in a natural and intuitive fashion. A subscriber may also use a personal computer to access a program scheduling application, e.g. via the INTERNET. Another aspect of the invention stores a user interface image library at the base docking interface device in a ROM or flash EPROM. In this way, a sophisticated graphical user interface is provided without using any transmission time or bandwidth to support the interface.

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